

SOUTH DAKOTA STATEWIDE FISHERIES SURVEY

2102-F-21-R-48

Name: Sherriff Dam

County(ies): Jones

Legal Description: T02N-R31E-Sec. 29

GPS: 44°06'29.180"N 100°25'33.551"W

Location from nearest town: 18 miles S, 4.5 miles W, 0.5 miles S of Ft. Pierre

Date of present survey: June 8-10, 2015 (netting)

Date of last survey: June 6-7, 2012 (netting)

Most recent lake management plan: None done

Management classification: Unknown

Primary Game Species	Secondary and Other Species
Bluegill	Black Bullhead
Black Crappie	Golden Shiner
Largemouth Bass	Yellow Perch

PHYSICAL DATA

Sherriff Dam is located in Jones County. The entire lake is located on property owned by the United States Department of Agriculture, Forest Service and is part of the Fort Pierre National Grasslands. The only structure located at Sherriff Dam is the dam grade, which is in good condition.

Sherriff Dam is a 22 acre lake that is entirely surrounded by cattails and rushes along with many other emergent types of aquatic vegetation. Submergent vegetation also surrounds the entire shoreline to depths of about 3-4 feet and consists of many different species of pondweeds like clasping leaf, floating leaf, milfoil and sago. The combination of submergent and emergent vegetation around the lake limits the amount of shore fishing opportunities. There is also very limited boat access that would be limited to a canoe or small duck boat that can be loaded and unloaded by hand. There is good ice fishing opportunities. No depth contour map has ever been done on Sherriff Dam.

CHEMICAL DATA

No pollution problems were evident at the time of the survey. Water clarity is good with a secchi disc reading of 7.5 feet. Other water quality characteristics were measured in the field on June 8, 2015, using a HACH water quality kit and a Hanna multiparameter meter. Results are found in Table 1.

Table 1. Water chemistry results from Sherriff Dam, Jones County, June 6, 2012.

Station	Depth (ft)	Temp (F)	DO (ppm)	CO2 (ppm)	ALK (mg/L)	HRD (mg/L)	pH	Cond. (μS/cm)	TDS (ppm)	Sal.	ORP	Secchi (ft)
A	Surface	73.0	5.48	17.0	128	278	7.70	617	309	0.30	-168.0	7.5
A	15.0	68.0	1.53	28.4	120	403	7.41	812	405	0.40	-190.0	

BIOLOGICAL DATA

Methods:

Sherriff Dam was sampled on June 8-10, 2015, with eight overnight trap net sets. The trap nets have 3ft x 5ft frames, 60ft leads, and ¾ inch knotted mesh. No experimental gill nets were set or electrofishing was done during this survey. Fish indices and statistics were completed using Winfin.

Results and Discussion:

Trap Net Catch

Table 2. Total catch of eight, overnight ¾-inch frame nets at Sherriff Dam, Jones County, June 8-10, 2015.

Species	#	%	CPUE	80% C.I.	Mean CPUE*	PSD	RSD-P	Mean Wr
Bluegill	73	49.7	9.1	± 4.1	54.5	58	45	110
Black Bullhead	31	21.1	3.9	± 1.5	11.8	90	61	99
Yellow Perch	30	20.4	3.8	± 2.0	1.3	17	13	93
Black Crappie	13	8.8	1.6	± 0.7	11.8	42	25	125

* Four year mean (1993, 2006, 2009, 2012)

Bluegill

Bluegills continue to be the dominant panfish species present in Sherriff Dam. The CPUE of 9.1 is well below the 50.9 from the 2012 survey as well as the 54.5 four year mean (Table 2). Size structure has improved with a PSD of 58 and an RSD-P of 45 compared to the 78 and 1, respectively, from 2012. This increase in size structure can also be seen in Figures 1 through 4, which illustrate the length frequency histograms for the last four years. Condition is good with a mean Wr of 110. Growth is also good with means right on with statewide, regional and SLI means (Table 3).

Table 3. Average back-calculated lengths (mm) for each age class of bluegill sampled from Sherriff Dam, Jones County, 2015.

Year Class	Age	N	Back-calculated Age									
			1	2	3	4	5	6	7	8	9	10
2014	1	1	60									
2013	2	39	42	118								
2012	3	2	58	134	201							
2008	7	23	48	95	138	163	189	211	224			
2007	8	5	39	65	109	154	178	200	215	229		
2006	9	1	42	72	120	154	171	196	211	239	243	
2005	10	2	52	82	134	172	183	196	204	216	224	229
All Classes		73	49	94	141	161	180	201	214	228	234	229
Statewide Mean			55	103	141	166	180					
Region II Mean			52	97	134	164	180					
SLI* Mean			53	101	138	163	180					

* Small Lakes and Impoundments

Figure 1. Length frequency histogram for bluegill sampled from Sherriff Dam, Jones County, 2015.

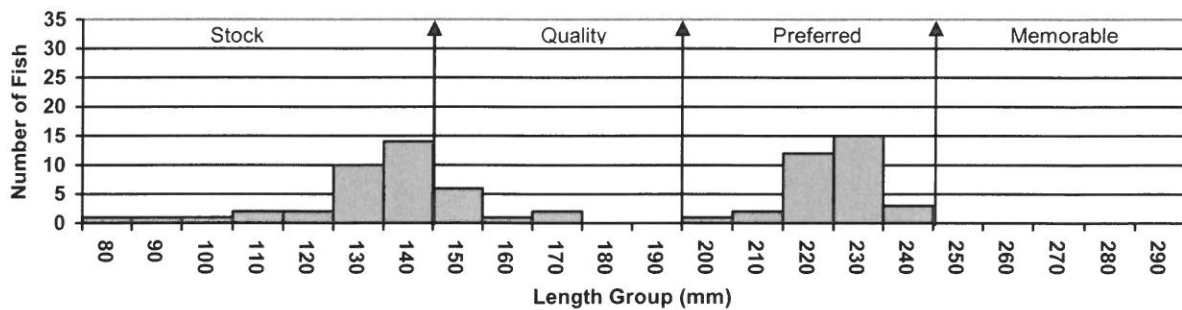


Figure 2. Length frequency histogram for bluegill sampled from Sherriff Dam, Jones County, 2012.

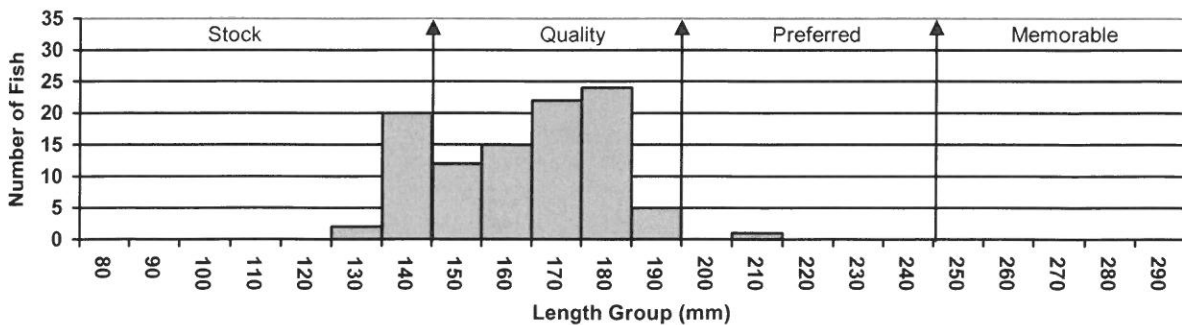


Figure 3. Length frequency histogram for bluegill sampled from Sherriff Dam, Jones County, 2009.

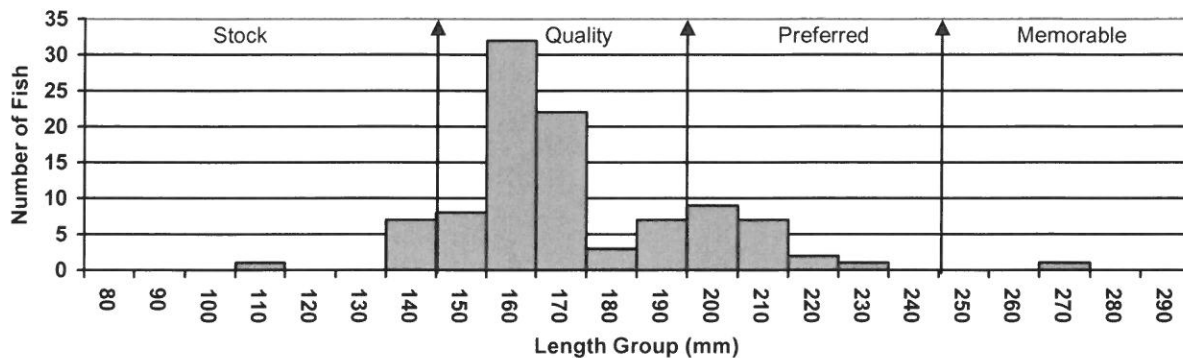
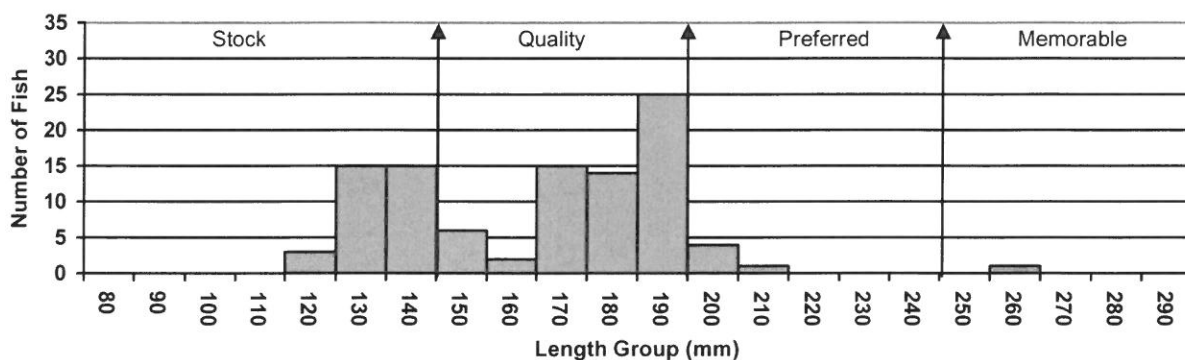


Figure 4. Length frequency histogram for bluegill sampled from Sherriff Dam, Jones County, 2006.



Black Crappie

Sherriff Dam continues to contain a black crappie population, although numbers have dropped. The current CPUE of 1.6 is below the 27.8 from the 2012 survey as well as the four year mean of 11.8 (Table 2). Size structure has increased with a PSD of 45 with an RSD-P of 25, compared to the 42 and 0, respectively, from the 2012 survey. The change in size structure over the last four surveys can be seen by looking at Figures 5 through 9. Condition is good with a mean Wr of 125. Growth is on the slow side with means slightly below statewide, regional and SLI means (Table 4). The slow growth has been the norm over the last couple surveys.

Table 4. Average back-calculated lengths (mm) for each age class of black crappie sampled from Sherriff Dam, Jones County, 2015.

Year Class	Age	N	Back-calculated Age					
			1	2	3	4	5	6
2013	2	4	64	119				
2012	3	4	71	110	133			
2010	5	2	94	143	180	211	236	
2009	6	3	72	118	160	185	208	230
All Classes		13	75	122	158	198	222	230
Statewide Mean			83	147	195	229	249	
Region II Mean			75	132	177	209	235	
SLI* Mean			78	134	180	209	226	

* Small Lakes and Impoundments

Figure 5. Length frequency histogram for black crappie sampled from Sherriff Dam, Jones County, 2015.

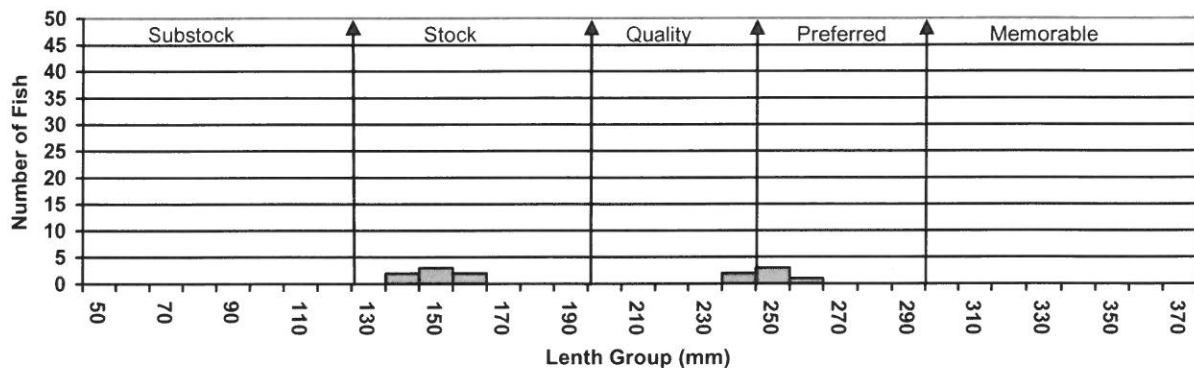


Figure 6. Length frequency histogram for black crappie sampled from Sherriff Dam, Jones County, 2012.

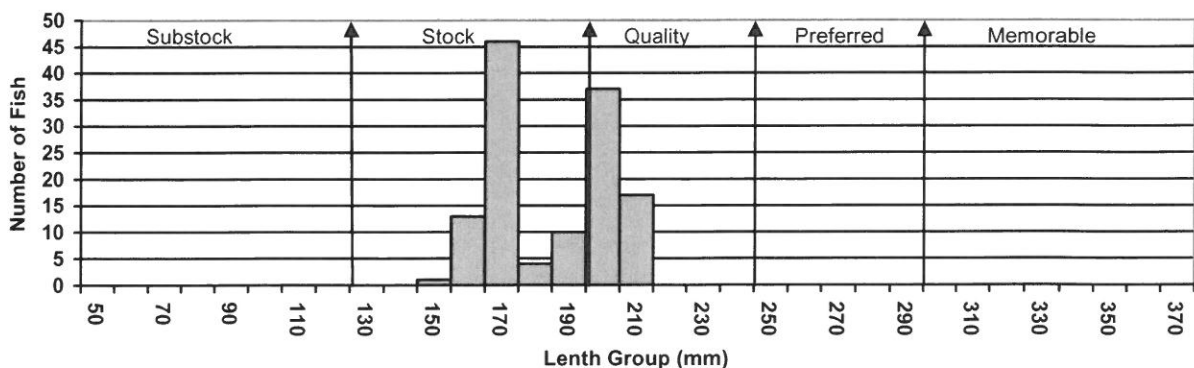


Figure 7. Length frequency histogram for black crappie sampled from Sherriff Dam, Jones County, 2009.

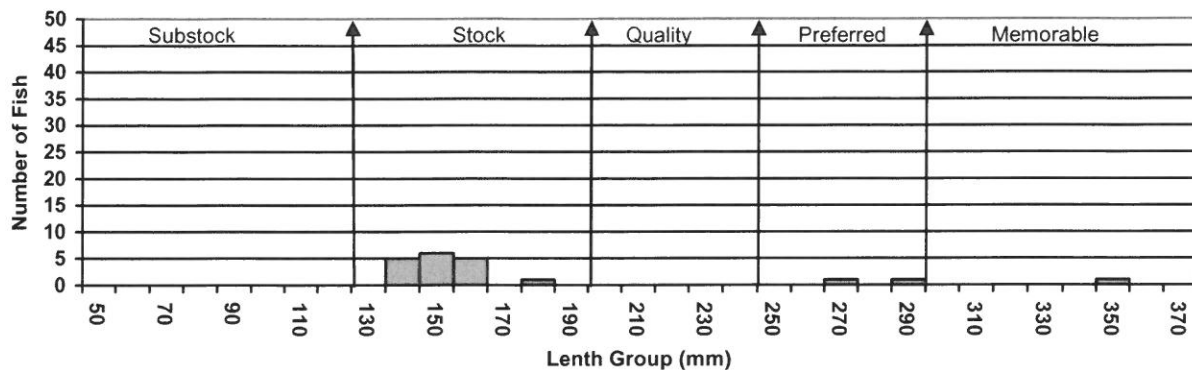


Figure 8. Length frequency histogram for black crappie sampled from Sherriff Dam, Jones County, 2006.

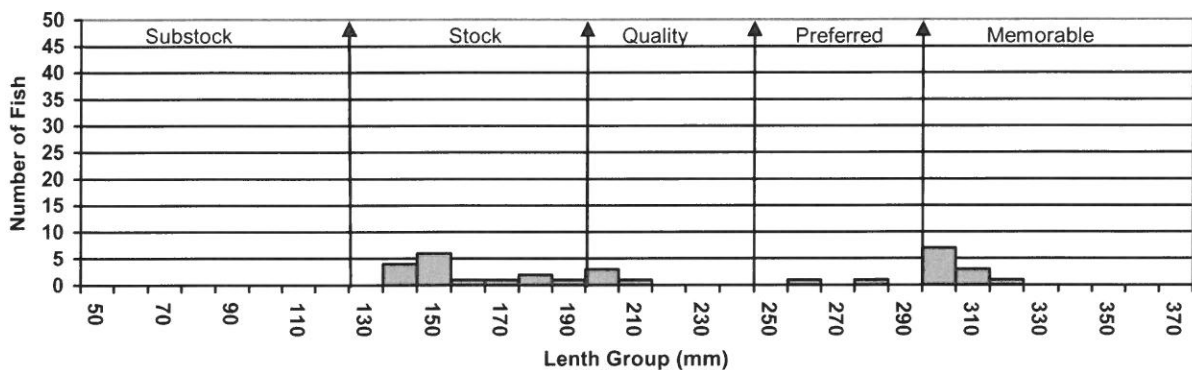
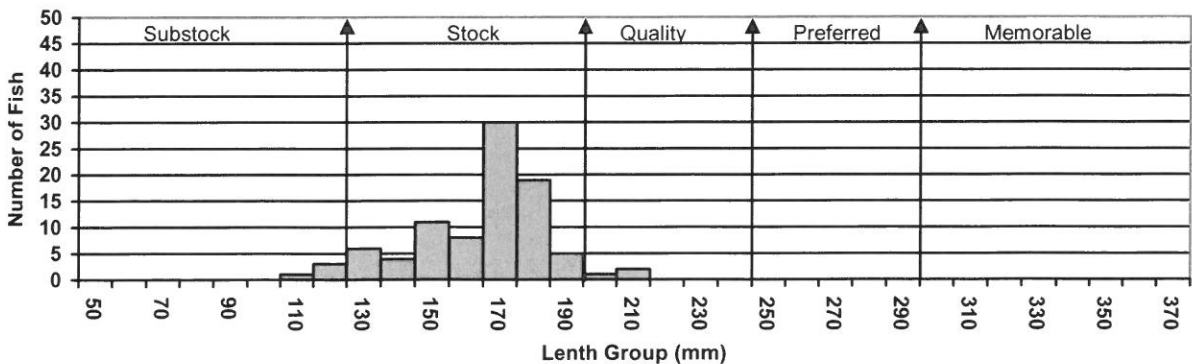


Figure 9. Length frequency histogram for black crappie sampled from Sherriff Dam, Jones County, 1993.



Yellow Perch

Yellow perch numbers have been stable over the last couple surveys. The CPUE of 3.8 is right on with the 4.5 from the 2012 survey but a little above the 1.3 four year mean (Table 2). Growth continues to be slightly slow with means below statewide, regional and SLI means (Table 5). Condition is good with a mean Wr of 93. Figures 10 and 11 illustrate the length frequency histograms for the last two surveys.

Table 5. Average back-calculated lengths (mm) for each age class of yellow perch sampled from Sherriff Dam, Jones County, 2015.

Year Class	Age	N	Back-calculated Age					
			1	2	3	4	5	6
2014	1	6	96					
2013	2	19	98	163				
2010	5	1	87	121	164	215	248	
2009	6	3	80	136	166	188	228	251
All Classes		29	90	140	165	202	238	251
Statewide Mean			86	145	190	220	242	
Region II Mean			91	152	196	219	242	
SLI* Mean			87	142	185	205	219	

* Small Lakes and Impoundments

Figure 10. Length frequency histogram for yellow perch sampled from Sherriff Dam, Jones County, 2015.

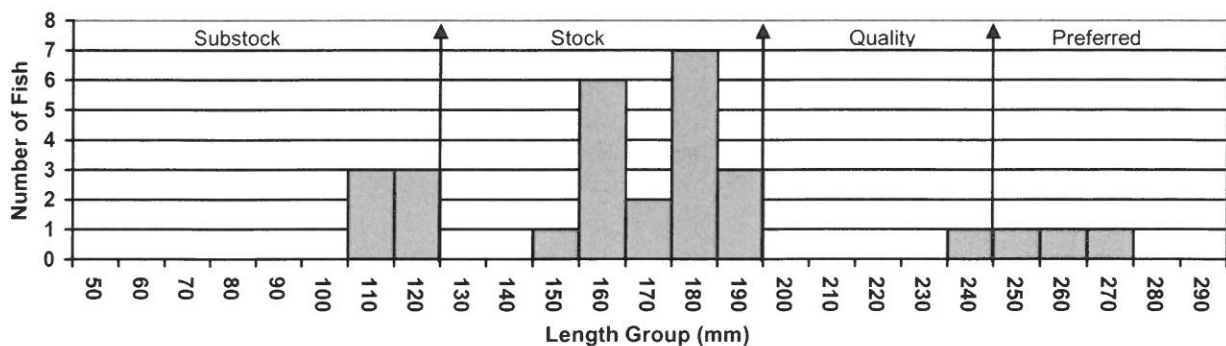
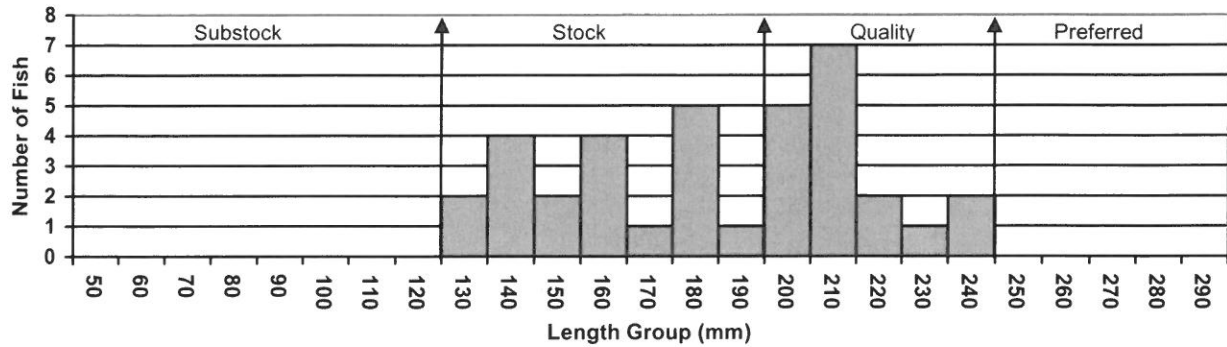


Figure 11. Length frequency histogram for yellow perch sampled from Sherriff Dam, Jones County, 2012.



Black Bullhead

Black bullhead numbers have dropped back since the last survey. The CPUE of 3.9 is below the 9.1 from 2012 as well as the 11.8 four year mean (Table 2). Figures 12 and 13 illustrate the length frequency histograms for the fish sampled over the last two surveys. Not a lot has really changed. Condition is good with a mean Wr of 99.

Figure 12. Length frequency histogram for black bullhead sampled from Sherriff Dam, Jones County, 2015.

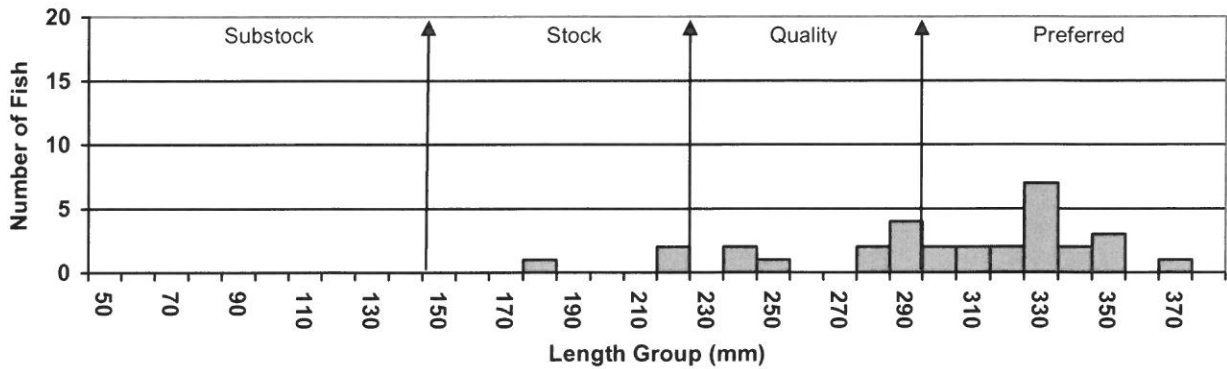
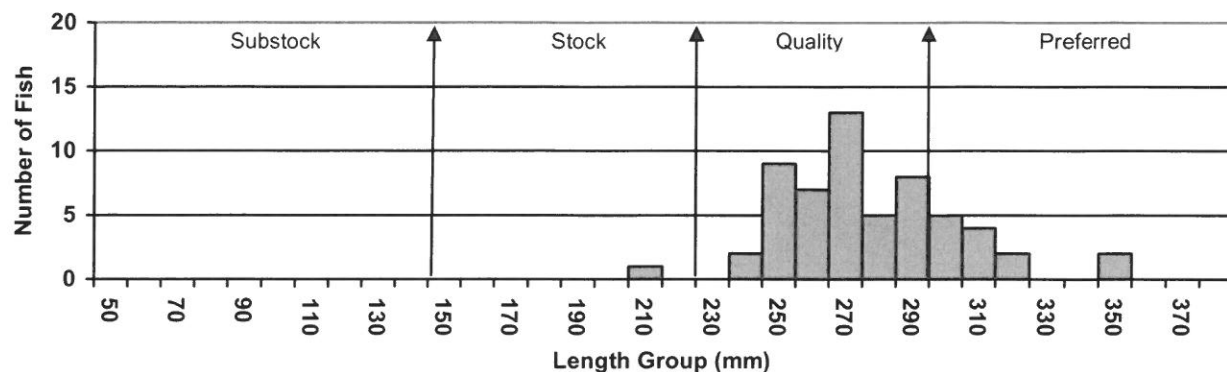


Figure 13. Length frequency histogram for black bullhead sampled from Sherriff Dam, Jones County, 2012.



Other species

No other species were sampled this survey season. Largemouth bass and golden shiners were the species not sampled this survey that had been in surveys past.

RECOMMENDATIONS

1. Resurvey again in 2018 to further monitor the fish populations and to continually collect trend data on the lake.